

MA DEP Waste Site Cleanup

Audit and Enforcement Update

1994 Compilation

This column represents what DEP hopes to be the beginning of a cooperative effort with the LSPA to disseminate information regarding DEP's Bureau of Waste Site Cleanup's (BWSC's) audit and enforcement efforts. This first column catalogs the results of BWSC audits and indicates future trends in DEP enforcement. Future columns may compare a series of audits that deal with a particular issue and discuss general issues regarding audits. Please direct questions regarding specific audit or enforcement actions to the appropriate BWSC Regional Engineer or Audit Section Chief.

July 1994

Audit Program

The BWSC audit program has become fully operational in each DEP region. Over 100 audits have been initiated. Those audits have primarily focused on cleanups pursuant to the 1988 MCP, such as those at waiver sites and short-term measures. As of June 15, Notices of Audit Findings have been issued for 39 sites. All Notices of Audit Findings are available for review in each DEP Regional Service Center and at BWSC in Boston.

For the majority of audits completed, BWSC has either not found violations or deficiencies which require audit follow-up or has identified violations or deficiencies that were corrected prior to or during the course of the audit. For instance, BWSC found that drums thought to require immediate removal contained purge water from groundwater monitoring activities that could be temporarily stored and disposed as needed (Watertown, RTN 3-0812, NOAF June 9, 1994). BWSC believed that a residence should have been considered a possible receptor in a risk assessment but did not require the risk assessment to be redone after review of data from the monitoring well nearest to the residence (Pittsfield, 1- 0919, June 3, 1994).

BWSC identified two situations requiring Immediate Response Actions. BWSC identified violations at 12 sites, deficiencies at 9 other sites and issued Notices of Noncompliance at two sites. One audit resulted in the identification of additional potentially responsible parties and the issuance of Notices of Response Action.

Significant audit follow-up has been called for in the following situations:

- 1.to address an existing LNAPL plume BWSC found that a plan for an active recovery system should be submitted (Springfield, DEP Site 1-0123, Notice of Site Inspection Findings February 1994);
- 2.to further delineate a separate-phase and dissolved gasoline plume that passes beneath a residential area BWSC requested an imminent hazard evaluation (Holyoke, Site 1-0700, March 11, 1994);
- 3.benzene concentrations found within 300 feet of private water supply wells required the testing of the wells and an imminent hazard evaluation, or the connection of the residences to the municipal water supply. (Yarmouth, 4-0186, April 5, 1994) (Note: the potentially responsible party has appealed the notice. BWSC has taken the position that issuance of a Notice of Audit Findings does not give rise to the right to an administrative hearing);
- 4.BWSC found that monitoring wells had not been referenced to a common benchmark, some wells have been dry when sampled and O&M, disposal and sampling practices have not been adequately documented; BWSC also issued a Notice of Noncompliance for the late implementation of a remedial system (New Bedford, 4-1168, April 5, 1994);
- 5.BWSC found a Phase III feasibility study deficient because the study evaluated only one action and did not

consider the factors listed in the 1988 MCP at 310 CMR 40.546(3)(d) (Easthampton, 1-0068, April 13, 1994);

6.BWSC requested the submission of the results of sampling of the sidewalls of a tank excavation and the revision of the Phase II Risk Assessment (Webster, 2-0681, May 2, 1994);

7.BWSC issued a Notice of Noncompliance for the PRP's failure to repair a fence and test leaking transformers in violation of the requirements of previous approval letters; the NOAF also found that empty drums, a soil pile and six underground storage tanks had not been addressed. BWSC also issued Notices of Response Action to additional PRPs that resulted in timely action to address an imminent hazard (Springfield, 1- 0616, June 9, 1994);

8.BWSC found a PRP violated its waiver by not submitting status reports and had been deficient in not submitting a waiver completion statement prior to expiration of its waiver (Worcester, 2-0302, June 10, 1994);

9.BWSC found a PRP violated a waiver condition requiring soil removal by back-filling a stockpile of contaminated soil (Brookline, 3-4823, June 14, 1994).

Enforcement Activities

BWSC has begun compliance and enforcement efforts to increase the level of compliance with the release notification and immediate response action plan documentation requirements of the 1993 MCP. The RNF form and the IRA plan allow BWSC to rely on the assessments of PRPs, LSPs and response action contractors to set DEP priorities for oversight and cleanup. LSPs may wish to confirm that their clients have submitted the proper documentation when first becoming involved in a new release.

BWSC procedures call for staff to inform PRPs of those documentation requirements at the time of notification and in follow-up correspondence. Despite those procedures, BWSC has found that less than 80% of PRPs who have verbally notified BWSC of a release have subsequently filed Release Notification Forms. Less than 70% of PRPs have submitted IRA plans, RAOs or IRACs within 60- days as the 1993 MCP requires. BWSC has already begun to issue notices of noncompliance and plans to follow-up those notices with penalty conferences if non-compliance continues. BWSC may issue penalties of up to \$1000 for each day the required documentation has not been submitted.

Waiver Expiration

The 1993 MCP allows for the smooth transition of sites with expiring waivers to Tier II status. Waiver recipients must file a status report prior to the expiration of the waiver. BWSC will send waiver recipients reminders when their waivers are about to expire that either a waiver completion statement or a status report must be submitted. Refer to the June 1994 "Sites With Approved Waivers" MCP Q&A for more information.

August 1994

Audit Program

BWSC completed 19 audits between June 15 and July 20. One audit reviewed a Response Action Outcome (RAO), the first audit of a RAO BWSC has completed. The other 18 audits reviewed cleanups performed pursuant to the 1988 MCP. As of July 20, Notices of Audit Findings (NOAFs) have been issued for 58 sites. All NOAFs are available for review in each DEP Regional Service Center and at BWSC in Boston. BWSC has been working with private vendors who plan to make NOAFs available both on-line and on CD-ROM.

As with the audits reported in the July LSPA newsletter, BWSC found that the majority of recently completed audits do not require audit follow-up or has identified violations or deficiencies that were corrected prior to or during the course of the audit. For instance, an inspection did not discover visible evidence of any release or safety hazards at a commercial/industrial property and a review of soil boring data indicated that contaminated fill did not pose a significant risk (Woburn, 3-2518, July 11, 1994). BWSC did not identify any deficiencies or violations in a RAO submitted after soil excavation and imposition of an Activity and Use Limitation (AUL) (Newton, 3-3438, July 14, 1994).

BWSC identified violations at 2 sites, deficiencies at 8 sites and one situation requiring Immediate Response Actions. BWSC requested audit follow-up in the following situations:

1. BWSC found that a Phase II report lacked documentation of PID screening results, excavation boundaries, and the location and depth of samples referred to in the report (Marlborough, 2-0516, June 20, 1994). The NOAF requested submittal of that documentation and further review of the risk assessment based on that information.
 2. A party agreed to install further downgradient wells and to conduct an imminent hazard evaluation of utility conduits and storm drains at a site in close proximity to the Zone II of a public water supply (Uxbridge, 2-0374, June 30, 1994).
 3. A risk assessment failed to consider potential construction activities in an asbestos burial area and residual petroleum contamination in soil, and underestimated risk from surficial soils. Pursuant to solid waste regulations, a notice of the asbestos burial area should have been filed at the registry of deeds (Lawrence, 3-3352, June 30, 1994).
 4. A risk assessment did not: (a) justify the anticipated foreseeable use, (b) contain exposure point concentration data, and (c) characterize environmental risk to a nearby wetland (Ware, 1-6043, July 6, 1994).
 5. Analytical data from an excavation and soil stockpile needed to be submitted (South Hadley, 1-0160, July 12, 1994).
 6. A site inspection and file review revealed that: (a) samples in surface water, wetlands, and sediments should be taken to confirm the estimates contained in an ecological risk characterization, (b) samples of a stressed area have not been taken, and (c) sumps, floor drains, dry wells and pipes had not been adequately investigated as potential sources (Cambridge, 3-2535, July 15, 1994).
 7. BWSC found that a short term measure to remove surficial contamination in a campground resulting from a 1989 tire fire had never been completed. BWSC set a deadline for Preliminary Response Actions and sampling under the 1993 MCP to begin (Pittsfield, 1-0635, July 20, 1994).
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September 1994

Audit Findings

BWSC completed 15 audits between July 21 and August 15. Six audits reviewed Response Action Outcomes (RAOs). The other 9 audits reviewed cleanups performed pursuant to the 1988 MCP. All Notices of Audit Findings (NOAFs) are available for review in each DEP Regional Service Center and at BWSC in Boston, including an additional 14 NOAFs for audits completed prior to June 30, 1994.

BWSC found many recently completed audits do not require audit follow-up. For instance, BWSC found an interim measure consisting of an interceptor trench, two recovery sumps and an oil water separate to be an effective risk reduction measure to eliminate oil seeps (Douglas, June 6, 1994, 2-0338). After a BWSC request, the PRP submitted a map outlining the portion of a property to which an RAO applies. (Belchertown, August 10, 1994, 1-10170).

In contrast to audits completed prior to July 16, BWSC found audit follow-up necessary after the majority of audits completed during this period. BWSC issued 3 Notices of Noncompliance (NONs) for violations of conditions of approval. BWSC also identified violations at 2 other sites, deficiencies at 9 sites and 5 situations requiring further response after an RAO. The greater frequency of audit follow-up during this period probably results from the additional time needed to discuss and prepare NOAFs identifying violations and deficiencies and the increasing number of RAOs audited after an initial compliance check.

BWSC requested audit follow-up in the following situations:

1. A Class A-2 RAO should have used EPA Method 8080 to test soil at a release of transformer oil near a residence in addition to Clor-n-Oil testing (North Andover, July 29, 1994, 3-6003).
2. Phase II - IV reports for a waiver site lacked adequate information on:
 - the site history,
 - man-made migration pathways,
 - discharge points of floor drains,
 - groundwater gradients and
 - soil contamination related to removal of a fuel oil tank and a discharge pipe(Taunton, August 8, 1994, 4-0577).
3. BWSC issued a NON for inadequate vapor monitoring and O&M of a sub-slab venting system in a college dormitory (Springfield, August 8, 1994, 1-0831).
4. BWSC required that a Class A-2 RAO in a commercial/residential area be further documented with:
 - an accurate site map depicting site characteristics, response actions and boundaries,
 - further characterization of conditions near former USTs and
 - additional groundwater data(West Roxbury, August 9, 1994, 3-1422).
5. BWSC issued a NON after finding violations of waiver conditions requiring:
 - a soil gas survey between a gas station and a residential property have a detection limit of at least 100 ppbv and
 - analysis of free product in the tank field monitoring wells(Wayland, August 10, 1994, 3-4490).
6. A Class A-1 RAO required further documentation to support the achievement of background (Billerica, August 11, 1994, 3-1614).
7. A Class A-2 RAO for a tank removal insufficiently discussed the feasibility of going to background and potential sources of chlorinated VOCs (Braintree, August 11, 1994, 3-4622).
8. A Class A-3 RAO inappropriately classified contaminated soil at a depth of 10 feet at a residential property as

inaccessible (S-3). TPH tests did not adequately investigate releases of waste motor oil. An AUL may have not been required had further sampling and soil removal been performed. (Dedham, August 11, 1994, 3-10134).

9. Assessments should have evaluated risks to construction workers and feasibility of cleanup to background. However, security measures at a new House of Corrections will adequately limit public exposure (Roxbury, August 11, 1994, 3-1977).

10. BWSC issued an NON after finding that implementation of a system to wash soils of cyanide violated conditions of a waiver requiring the completion of phased reports prior to implementation, the covering of the soils to be treated, the monitoring of air for cyanide gas and the supervision of the system by a qualified consultant (Springfield, August 15, 1994, 1-0185).

11. Backfilling of contaminated soil violated waiver conditions and required further site characterization and consideration of the feasibility of removal (Wakefield, August 15, 1994, 3-1720).

Enforcement

BWSC has begun to conduct inspections of sites which have active short-term or interim measures previously approved by the Department. BWSC continues to issue NONs for failures to timely submit Release Notification Forms and IRA plans.

October 1994

Audit Findings

BWSC completed 8 audits between August 16 and September 15. Three audits reviewed Response Action Outcomes (RAOs). The other 5 audits reviewed cleanups performed pursuant to the 1988 MCP. All Notices of Audit Findings (NOAFs) are available for review in each DEP Regional Service Center and at BWSC in Boston.

BWSC did not find violations or deficiencies at four sites. For example, VOC contamination in a former solvent storage area had been successfully reduced by an air stripper. (East Longmeadow, 1-0061, September 6, 1994).

BWSC issued 1 Notice of Noncompliance (NON) for violations of conditions of approval. BWSC also identified deficiencies at 3 sites and 2 situations requiring further response after an RAO.

BWSC requested audit follow-up in the following situations:

1. Further steps needed to be taken to reduce VOC concentrations in a commercial building. The existing vapor abatement system had not effectively reduced VOC concentrations. BWSC issued a NON for improper indoor air monitoring. (Springfield, 1-0806, August 26, 1994).
 2. An RAO failed to adequately consider the potential effect of VOC soil gas migration near an UST excavation in a residential setting. Also, the RAO lacked a clear and accurate description of its bounds, listed the LSP as the person submitting the RAO, indicated both removal and "assessment only" had occurred and failed to consider the feasibility of achieving background. (Sudbury, 3-1153, September 2, 1994).
 3. BWSC requested a waiver completion statement be supplemented with additional sampling to confirm complete removal of contaminated soil and achievement of background, and calculations for exposure point concentrations. (Reading, 3-0047, September 7, 1994).
 4. An RAO for a salvage yard failed to consider heavily stained soils and changes in possible site use, and relied on insufficient sampling data. (Salisbury, 3-0771, September 12, 1994).
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November 1994

Common RAO Problems

BWSC has encountered a number of common problems with RAOs during the course of RAO audits. Some site and risk characterizations have been inadequate. Sufficient analytical data and other documentation should be included with an RAO to confirm soil and groundwater categories, the extent of contamination and source elimination (see Notices of Audit Findings: Brookfield, 2- 0001058, September 22, 1994 and Shrewsbury, 2-0000872, September 22, 1994). RAOs frequently fail to evaluate the feasibility of achieving or approaching background. Some Class A-1 RAOs lacked data to support the conclusion that background has been achieved (see NOAF: Franklin, 4-6016, September 22, 1994).

RAOs often require clearer and more accurate descriptions of the areas subject to the RAO. Descriptions should reference surveyed boundaries or permanent structures so that future LSPs can reliably identify the RAO area in the future. The vertical extent of the contamination (e.g. depth to any remaining contamination) should be noted. RAOs for portions of existing sites should cross-reference the existing site number or RTN. (See NOAF: Belchertown, 1-10170, August 10, 1994). AULs have not been implemented for some Class A-3 and B-2 RAOs. Public notice requirements have been ignored, including those for filing AULs.

Recent Audit Findings

BWSC completed 11 audits between September 16 and October 14, 1994. BWSC requested audit follow-up at the following sites:

- 1.The extent of oil migration beneath a concrete slab of an apartment building had not been sufficiently determined (Boston, 3- 3415, September 22, 1994).
- 2.A Class A-2 RAO failed to adequately explain the selection of Method 1 soil and groundwater categories and consider the feasibility of achieving background (Brookfield, 2-0001058, September 22, 1994).
- 3.A Class A-1 RAO resulting from the removal of an UST relied on inadequate soil sample collection procedures and locations, and had not included an assessment of groundwater contamination that could impact nearby public water supply wells (Franklin, 4-6016, September 22, 1994).
- 4.An unaddressed vapor threat to residents may exist since a groundwater recovery system has failed to effectively contain a petroleum plume (North Andover, 3-0400, September 22, 1994).
- 5.Residual contamination from a pump island excavation exceeded the standards allowed for an A-2 RAO (Shrewsbury, 2-0000872, September 22, 1994).
- 6.A Phase II Report failed to identify the source and extent of chlorinated solvent releases and assess potential UST contamination and heavy metal releases near a loading dock. Risks to construction workers, commercial workers, children and wetlands were not evaluated (Wakefield, 3-0443, September 22, 1994).
- 7.A waiver completion statement did not identify the discharge points of a MDC trap and an on-site catch basin (Wellesley, 3-2857, October 5, 1994).
- 8.A groundwater monitoring plan recommended in a waiver completion statement had not been followed, groundwater flow direction had not been determined and the groundwater monitoring wells had subsequently been destroyed (Revere, 3-1500, October 5, 1994).

Audit Followup

BWSC agreed with a revised Phase III study that further supported the conclusion that additional actions to remediate a plume of contaminated groundwater were not feasible (NOAF: Easthampton, 1- 0068, April 13, 1994).

Soils

General Builders Supply of Norwood agreed to pay a \$2,000.00 penalty for failing to properly manage soil removed as part of a tank excavation. General Builders also agreed to manage the soils in accordance with the 310 CMR 40.0030 within 21 days of the signing of the Consent Order.

A noticeable drop in contaminated soils handled under Bills of Lading has occurred since the 1993 MCP delegated the responsibility to sign BOLs to LSPs. BWSC and the Department's Bureau of Waste Prevention have begun to inspect soil recyclers in an effort to account for the drop in soils handled under BOLs.

Liens and Penalty Assessments

BWSC has started filing liens on property it cleans up under new procedures developed as part of the 1993 MCP revisions. BWSC recently demanded penalties from parties who have failed to file reports required by Subparts C & D.

